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REMARKS

Claims 1-22 were pending in the present application. Claims 4 and 7 were canceled; claims 1-3, 5-6, and 8-22 were amended; and claims 23-24 were added. Reconsideration of the claims in light of the amendments and the following arguments is respectfully requested.

I. 35 U.S.C. § 112, Second Paragraph

Claims 1-12, 17, 19, and 21 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed.

The rejection cited a number of references to "host" as lacking antecedent basis. It is noted that all but one reference to 'host' has been deleted, while the single remaining reference defines the adapter as a host adapter. Therefore, it is submitted that the rejection of these claims under 35 U.S.C. § 112, second paragraph has been overcome.

II. 35 U.S.C. § 102, Anticipation

The examiner has rejected claims 1-8 and 10-22 under 35 U.S.C. § 102 as being anticipated by Dearth et al., U.S. Patent 6,744,765 B1, hereinafter Dearth. This rejection is respectfully traversed.

Exemplary claim 1 recites,

> 1. (Amended) A method, operable in a data processing system having a plurality of processes, for performing communication management, comprising the steps of:
>
> sending a communication management request from a first process within said plurality of processes to an adapter associated with a second process within said plurality of processes, wherein a private data field contains communication attributes for a plurality of communication connections and unreliable datagram resolutions;
>
> receiving a reply to said communication establishment request; and
>
> responsive to said second process allowing said communication management request, initiating, under control of said adapter, multiple communication connections and unreliable datagram resolutions.

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Regarding claim 1, the office action states,

> Dearth et al teach a method, operable in a data processing system having a plurality of processes connection (column 1, lines 52-58), for performing a communication connection (fig. 1, items 1-13; column 2, lines 53-57), comprising the steps of:
>
> sending a communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes connection (column 2, lines 57-66);
>
> retrieving the communication establishment request, under control of the adapter, via the communication establishment message from the host connection (column 2, lines 56-67; column 3, lines 1-2, 29-33); and
>
> responsive to the second process within the plurality of processes allowing the communication management request, initiating, under control of the adapter, multiple communications connections and unreliable datagram resolutions (column 6, lines 4-6; column 2, lines 19-23; it is important to note that in a data gram-based network, a sequence of packets from a source host to a destination host may take different path).[1]

It is submitted that there are at least two problems with this rejection: (a) Dearth does not show sending a communication management request and (b) Dearth does not show initiating multiple communications connections in response to the request being granted. These will be discussed in greater detail.

Dearth does not show sending a communication management request

The cited section of Dearth states,

> In one aspect, the invention relates to a system of transmitting messages between a client process and a remote process which comprises a system area network providing a communications channel between the client process and the remote process. The system further includes a first channel adapter forming an interface between the client process and the communications channel. The first channel adapter is configured to receive a message from the client process, segment the message into a series of packets, assign a sequence number to each packet, and place the packets in order on the communications channel. The system further includes a second channel adapter forming an interface between the remote process and the communications channel.

[1] Office action of 11/17, page 3, item 4 through first paragraph of page 4

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> The second channel adapter is configured to receive packets from the communications channel and send at least one acknowledgement message to the first channel adapter in response to the received packets. The acknowledgement message has a packet sequence number field containing a packet sequence number and a payload containing a message sequence number. The message sequence number identifies a complete message last received at the second channel adapter, and the packet sequence number identifies a packet last received at the second channel adapter.

Notably in this excerpt, there is no mention of a communications management request. There are certainly channel adapters on both ends of the communications channel, but no hint that these channel adapters see any reason to request the establishment of a channel. This does not appear to preclude the sending of messages, but it also does not meet the recitations of the claim. Thus, it is submitted that this claim limitation is not met.

Dearth does not show initiating multiple communications connections

Looking primarily at the last paragraph of the rejection quoted above, it appears that for the recitation of establishing multiple communications connections [and in claim 1, unreliable datagram resolutions], the rejection relies on the fact that a single group of packets in a data gram-based network may ultimately be sent by different routes. Thus, the rejection of all claims appears to be calling these different paths the different connections that are being established.

It is noted, however, that Dearth does not back up this assertion, as Dearth clearly defines the difference between data-gram-based and connection-based systems,

> Switches are used to route packets between the sender and the receiver. The switches typically route packets using either a datagram (or connectionless) network or a virtual-circuit (or connection-oriented) network. In a datagram network, each packet contains enough information, i.e., destination address, to enable any switch to decide how to get the packet to its destination. In a virtual-circuit network, a virtual connection is first set up between the source host and the destination host. This virtual connection may be set up by a network administrator. Alternatively, a host can send messages into the network to cause the state to be established. In a datagram-based network, a sequence of packets sent from a source host to a destination host may take different paths. Infiniband℠ also supports a form of datagram-based network which is based upon explicit setup of switch routing tables by the subnet manager. In a virtual-circuit network, a sequence

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> of packets sent from a source host to a receiver host takes the path established by the virtual circuit.[2]

It is submitted that while it is true that packets from the same message can travel by different routes in a data-gram-based system, this can happen precisely because the processes do not request a specific connection (route). Thus, in a data-gram-based system, there would be no request for a connection. Only in a system that uses connections would a request for a connection be issued.

In the instant application, the claims are directed to forming multiple connections between two processes, using a single request. It is submitted, however, that multiple paths taken by packets in a connectionless system is not the same as creating several connections in a system that uses connections. It is further submitted that the cited portions of Dearth do not and cannot meet the recitations of the claimed invention.

Therefore, the rejection of claims 1-8 and 10-22 under 35 U.S.C. § 102 has been overcome.

Furthermore, Dearth does not teach, suggest, or give any incentive to form connections in a datagram-based system. In fact the very concept of a datagram-based system teaches away from making connections between processes, by defining the system as connectionless, needing no previously set connections. It is submitted that one of ordinary skill in the art would not be led to modify Dearth to reach the present invention when the reference is examined as a whole. It is further submitted that the presently claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to Dearth reach the claimed invention.

III. 35 U.S.C. § 103, Obviousness

The examiner has rejected claim 9 under 35 U.S.C. § 103 as being unpatentable over Dearth in view of Boucher et al. This rejection is respectfully traversed.

It is submitted that claim 9 is dependent on claim 1 and inherits the allowability of its parent claim. Boucher does not make up for the deficiencies of Dearth in showing a

[2] Dearth, column 2, lines 8-26, underlining added; lines 14-26 were cited against the initiating step

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connection-based system in which multiple connections can be created by a single request.

Therefore, the rejection of claim 9 under 35 U.S.C. § 103 has been overcome.

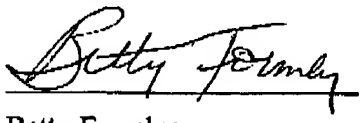
IV. Conclusion

It is respectfully urged that the subject application is patentable over Dearth *et al.* and Boucher *et al.* and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: Feb. 17, 2005

Respectfully submitted,



Betty Formby
Reg. No. 36,536
Yee & Associates, P.C.
P.O. Box 802333
Dallas, TX 75380
(972) 385-8777
Agent for Applicants

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